

Experiment – influence order of houseplacement on running time and score

Results of the random algorithm being run for 100 iterations. The three graphs differ in the number of houses placed on the grid. For each number of houses variants, 3 different orders in which the houses are randomly placed have been tested.

BMS: bungalow – maison – single/eensgezins

MBS: maison – bungalow – single/eensgezins

SMB: single/eensgezins – maison – bungalow

The goal of this experiment was to evaluate how the order in which the houses are placed influences the value of the grid and the running time of the algorithms. The table and figures below show the obtained results. From the results can be concluded that the order in which the houses are placed does not influence the total value of Amstelhaege. Table 1 shows that the running time also is not influenced by the order in which the houses are placed. The difference in running time is very little between the orders and the fastest running time is obtained by different orders for different number of houses built.

Table 1. Running time random algorithm for different orders of house placements.

	MBS	BMS	SMB	MSB	BSM	SBM
20	22.165	22.578	20.675	22.874	22.245	22.850
40	24.062	26.719	28.166	25.664	23.916	23.522
60	26.259	22.687	28.272	25.249	/	/

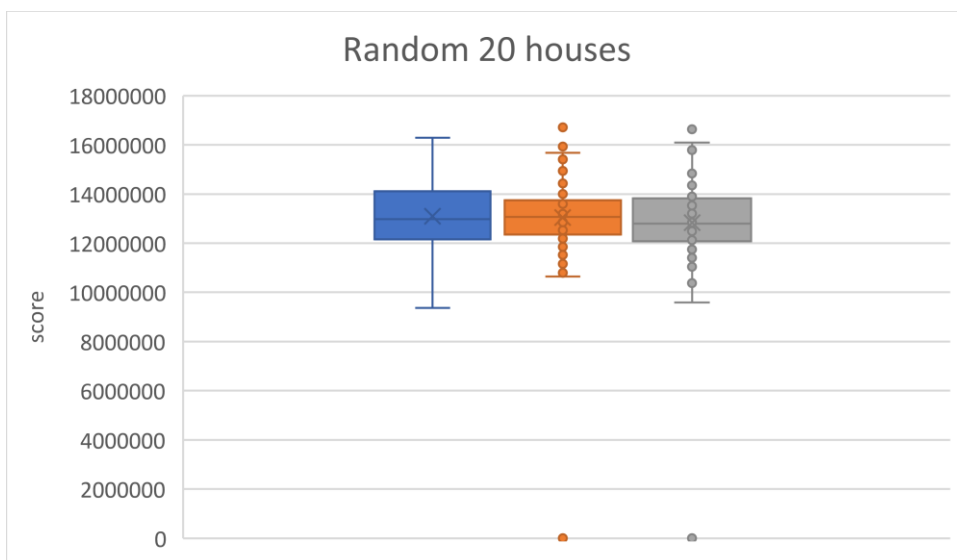


Figure 1. Value of Amstelhaege for random placement of 20 houses.

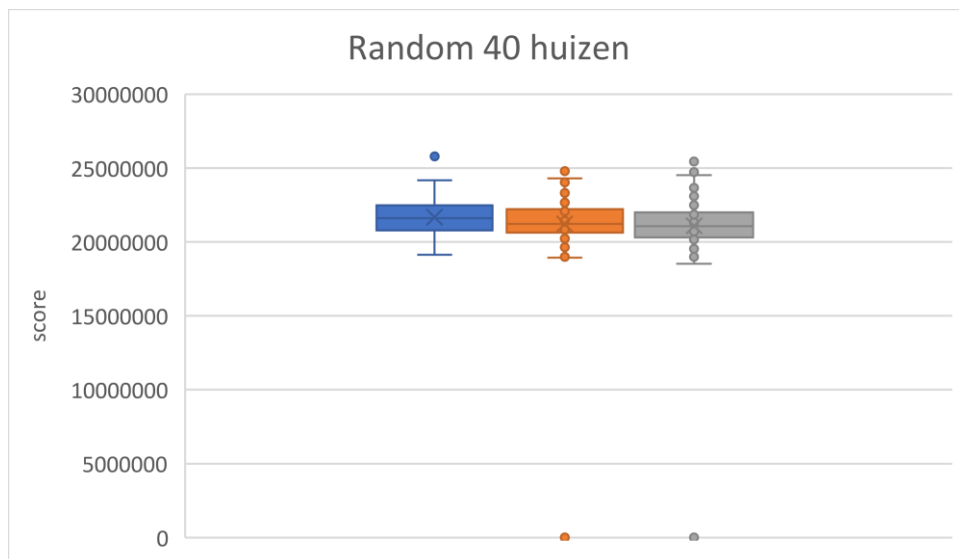


Figure 2. Value of Amstelhaege for random placement of 40 houses.

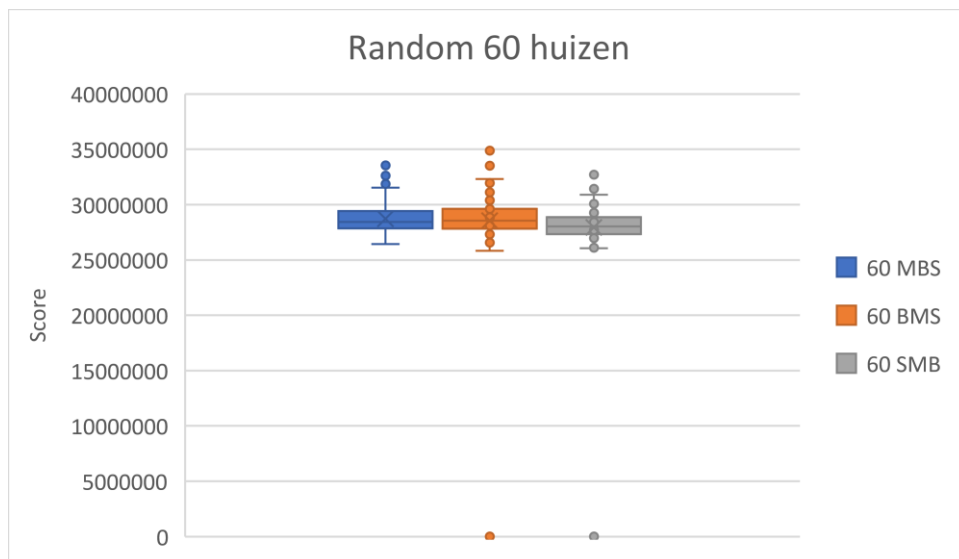


Figure 3. Value of Amstelhaege for random placement of 60 houses.